

Regional HIV/AIDS Epidemiologic Profile of Middlesex County, Massachusetts: 2015

Recent changes to the presentation of Massachusetts HIV/AIDS surveillance data

Effective January 1, 2011, the Massachusetts Department of Public Health (MDPH), Bureau of Infectious Disease, HIV/AIDS fact sheets, epidemiologic reports and other HIV data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts. As of January 1, 2015, this resulted in the removal of 4,401 HIV/AIDS cases, of which 1,021 have died and 3,380 were living. These persons living with HIV/AIDS may still continue to reside and receive care in the Commonwealth. The total number of persons living with HIV/AIDS, irrespective of location at diagnosis, is the basis for MDPH service planning. Please note that previous HIV/AIDS fact sheets, data reports and presentations included cases that may have been first diagnosed in another state.

Also effective January 1, 2011, the MDPH HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to eliminate the presumed heterosexual risk category for men; those cases have been reassigned to the no identified risk (NIR) category. The presumed heterosexual risk category was used with the intention of identifying HIV risk for women when sex with men is the only reported risk factor, there is no evidence of current or past injection drug use (IDU), and behavioral risk and HIV status information about male sexual partners are unknown. The application of the presumed heterosexual risk category to men is overly inclusive in that woman to man HIV transmission is biologically less probable, and there are alternate risks that are possible for men, including sex with other men (MSM) or IDU. The CDC reports men diagnosed with HIV/AIDS who report sex with women as their only risk factor, without corresponding partner risk or HIV status information, in the NIR category. This revision to report presumed heterosexual male HIV/AIDS cases as NIR will bring Massachusetts HIV/AIDS case reporting for men in alignment with CDC standards. The MDPH will maintain presumed heterosexual and heterosexual risk categories for women.

Table 1. Total number of people reported with HIV infection or AIDS¹ by mortality status on December 31, 2014: Middlesex County, Massachusetts²

	N	%
People Living with HIV/AIDS	3,412	64%
People Reported with HIV or AIDS who are Deceased	1,906	36%
Total Number of People Reported with HIV Infection or AIDS	5,318	100%

¹ Does not include individuals diagnosed with HIV infection (non-AIDS) who died prior to January 1, 1999 or who were not in care on January 1, 1999

² Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/15

Table 2. Average annual rate of HIV infection diagnosis from 2011 to 2013 and HIV/AIDS prevalence rate on 12/31/14¹: Middlesex County, Massachusetts²

Average annual HIV diagnosis rate from 2011–2013	Average rate per 100,000	Average annual number of HIV diagnoses
Middlesex County, MA	8.9	133.3
Massachusetts Total	10.7	701.3
HIV/AIDS prevalence rate on 12/31/14	Rate per 100,000	Number of people living with HIV/AIDS
Middlesex County, MA	227.0	3,412
Massachusetts Total	301.5	19,737

¹ The denominators for rate calculations are from the MDPH Massachusetts Race Allocated Census 2010 Estimates (MRACE 2010), Massachusetts Department of Public Health, Bureau of Health Information, Statistics, Research, and Evaluation.

² Effective, January 1, 2011 the Massachusetts Department of Public Health, HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/15

Table 3. People living with HIV/AIDS¹, deaths among people reported with HIV/AIDS, and newly diagnosed HIV infections by year²: 2004–2013, Middlesex County, Massachusetts³

Year	HIV/AIDS Prevalence	Deaths among those with HIV/AIDS	Diagnosis of HIV Infection
2004	2,342	51	165
2005	2,479	40	177
2006	2,589	44	154
2007	2,706	28	145
2008	2,819	34	147
2009	2,920	39	140
2010	3,012	44	136
2011	3,108	33	129
2012	3,210	34	136
2013	3,319	26	135

¹ Number of people living with HIV/AIDS on 12/31 of each year

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

³ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

Data source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/15

Table 4. People diagnosed with HIV infection from 2011–2013¹ and people living with HIV/AIDS on December 31, 2014 by gender, place of birth, race/ethnicity, exposure mode, age at HIV infection diagnosis and current age: Middlesex County, Massachusetts²

HIV Infection Diagnoses			PLWH/A	
Gender:	N	%	N	%
Male	280	70%	2,352	69%
Female	120	30%	1,060	31%
Place of Birth:	N	%	N	%
US	194	49%	1,812	53%
Puerto Rico/US Dependency ³	10	3%	194	6%
Non-US	196	49%	1,406	41%
Race/Ethnicity:	N	%	N	%
White (non-Hispanic)	161	40%	1,481	43%
Black (non-Hispanic)	134	34%	1,191	35%
Hispanic/Latino	76	19%	589	17%
Asian/Pacific Islander	25	6%	131	4%
Exposure Mode:	N	%	N	%
Male-to-male sex (MSM)	180	45%	1,309	38%
Injection Drug Use (IDU)	14	4%	367	11%
MSM/IDU	-- ⁷	-- ⁷	98	3%
Heterosexual Sex	31	8%	455	13%
Other	-- ⁷	-- ⁷	77	2%
Total Undetermined	165	41%	1,106	32%
• Presumed Heterosexual Sex ⁴	54	14%	436	13%
• Undetermined ⁵	111	28%	670	20%
Age:	N	%	N	%
	At Diagnosis		On December 31, 2014	
Under 13	2	1%	5	<1%
13 to 19	6	2%	15	<1%
20 to 24	28	7%	46	1%
25 to 29	66	17%	108	3%
30 to 34	61	15%	205	6%
35 to 39	49	12%	233	7%
40 to 44	52	13%	395	12%
45 to 49	53	13%	610	18%
50 to 54	41	10%	678	20%
55 to 59	16	4%	513	15%
60+	26	7%	604	18%
Total⁶	400	100%	3,412	100%

¹ Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

² Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

³ Ninety-nine percent of people diagnosed with HIV infection from 2011–2013 who were born in a US dependency were born in Puerto Rico, <1% were born in the US Virgin Islands.

⁴ Includes female sex with male of unknown HIV status or risk. This category is limited to females.

⁵ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

⁶ Total includes American Indian/Alaska Native, other and unspecified race/ethnicity.

⁷ Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/15

Table 5. People living with HIV/AIDS on December 31, 2014 by gender and race/ethnicity: Middlesex County, Massachusetts¹

Race/Ethnicity:	Male		Female	
	N	%	N	%
White (non-Hispanic)	1,242	53%	239	23%
Black (non-Hispanic)	551	23%	640	60%
Hispanic/Latino	446	19%	143	13%
Asian/Pacific Islander	101	4%	30	3%
Total²	2,352	100%	1,060	100%

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Total includes American Indian/Alaska Native, other and unspecified race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/15

Table 6. People living with HIV/AIDS on December 31, 2014 by gender and exposure mode: Middlesex County, Massachusetts¹

Exposure Mode:	Male		Female	
	N	%	N	%
Male-to-male sex (MSM)	1,309	56%	N/A	N/A
Injection drug use (IDU)	223	9%	144	14%
MSM/IDU	98	4%	N/A	N/A
Heterosexual sex	134	6%	321	30%
Other	40	2%	37	3%
Total Undetermined	548	23%	558	53%
• Presumed heterosexual sex ²	N/A	N/A	436	41%
• Undetermined ³	548	23%	122	12%
Total	2,352	100%	1,060	100%

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Includes female sex with male of unknown HIV status or risk. This category is limited to females.

³ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

N/A=Not Applicable

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/15

Table 7. People diagnosed with HIV infection by gender and year of diagnosis: Middlesex County, Massachusetts¹, 2004–2013²

	Male		Female		Total
	N	%	N	%	
2004	108	65%	57	35%	165
2005	123	69%	54	31%	177
2006	108	70%	46	30%	154
2007	94	65%	51	35%	145
2008	97	66%	50	34%	147
2009	105	75%	35	25%	140
2010	98	72%	38	28%	136
2011	89	69%	40	31%	129
2012	86	63%	50	37%	136
2013	105	78%	30	22%	135

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/15

Table 8. People diagnosed with HIV infection by race/ethnicity and year of diagnosis: Middlesex County, Massachusetts¹, 2004–2013²

	White Non-Hispanic		Black Non-Hispanic		Hispanic/Latino		Asian/Pacific Islander		Total ³
	N	%	N	%	N	%	N	%	N
2004	66	40%	67	41%	25	15%	6	4%	165
2005	72	41%	75	42%	25	14%	5	3%	177
2006	68	44%	50	32%	31	20%	5	3%	154
2007	57	39%	53	37%	29	20%	5	3%	145
2008	41	28%	60	41%	28	19%	17	12%	147
2009	55	39%	49	35%	26	19%	9	6%	140
2010	55	40%	42	31%	31	23%	7	5%	136
2011	53	41%	46	36%	18	14%	10	8%	129
2012	49	36%	49	36%	31	23%	5	4%	136
2013	59	44%	39	29%	27	20%	10	7%	135

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

³ Totals include American Indian/Alaskan Native individuals, and those of other or undetermined race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/15

Table 9. People diagnosed with HIV infection by place of birth and year of diagnosis: Middlesex County, Massachusetts¹, 2004–2013²

	US		Puerto Rico/ US Dependency ³		Non-US		Total
	N	%	N	%	N	%	N
2004	78	47%	7	4%	80	48%	165
2005	80	45%	5	3%	92	52%	177
2006	86	56%	5	3%	63	41%	154
2007	75	52%	5	3%	65	45%	145
2008	64	44%	9	6%	74	50%	147
2009	71	51%	8	6%	61	44%	140
2010	76	56%	-- ⁴	-- ⁴	-- ⁴	-- ⁴	136
2011	63	49%	-- ⁴	-- ⁴	-- ⁴	-- ⁴	129
2012	57	42%	6	4%	73	54%	136
2013	74	55%	-- ⁴	-- ⁴	-- ⁴	-- ⁴	135

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

³ Ninety-eight percent of people living with HIV/AIDS in MA who were born in a US dependency were born in Puerto Rico, 2% were born in US minor outlying areas, <1% were born in the US Virgin Islands, and <1% were born in Guam.

⁴ Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/15

Table 10. People diagnosed with HIV infection by exposure mode and year of diagnosis: Middlesex County, Massachusetts¹, 2004–2013²

	MSM		IDU		MSM/ IDU		HTSX		Other		Pres. HTSX ³		Undeter- mined ⁴		Total
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N
2004	48	29%	13	8%	-- ⁵	-- ⁵	33	20%	-- ⁵	-- ⁵	21	13%	45	27%	165
2005	58	33%	17	10%	6	3%	26	15%	0	0%	26	15%	44	25%	177
2006	64	42%	17	11%	-- ⁵	-- ⁵	16	10%	-- ⁵	-- ⁵	21	14%	30	19%	154
2007	54	37%	9	6%	-- ⁵	-- ⁵	14	10%	-- ⁵	-- ⁵	22	15%	42	29%	145
2008	56	38%	-- ⁵	-- ⁵	-- ⁵	-- ⁵	15	10%	-- ⁵	-- ⁵	25	17%	43	29%	147
2009	64	46%	7	5%	-- ⁵	-- ⁵	18	13%	-- ⁵	-- ⁵	14	10%	30	21%	140
2010	60	44%	7	5%	-- ⁵	-- ⁵	11	8%	-- ⁵	-- ⁵	19	14%	31	23%	136
2011	53	41%	7	5%	-- ⁵	-- ⁵	13	10%	-- ⁵	-- ⁵	14	11%	39	30%	129
2012	54	40%	6	4%	-- ⁵	-- ⁵	13	10%	-- ⁵	-- ⁵	23	17%	38	28%	136
2013	73	54%	-- ⁵	-- ⁵	5	4%	5	4%	-- ⁵	-- ⁵	17	13%	34	25%	135

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.

³ Includes female sex with male of unknown HIV status or risk. This category is limited to females.

⁴ Includes male sex with female of unknown HIV status or risk, those still being followed up for risk information, those who have died with no determined risk, and those lost to follow-up.

⁵ Values less than five are suppressed for populations less than 50,000 or for populations of unknown size. Additional values may be suppressed to prevent back calculation.

MSM = Male-to-Male Sex; IDU = Injection Drug Use; MSM/IDU = Male-to-Male Sex and Injection Drug Use; HTSX = Heterosexual Sex; Pres. HTSX = Presumed Heterosexual Sex

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/15

Table 11. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by year of diagnosis: Middlesex County, Massachusetts¹, 2004–2013²

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
Year:	N	N	%
2004	65	165	39%
2005	78	177	44%
2006	59	154	38%
2007	58	145	40%
2008	43	147	29%
2009	37	140	26%
2010	46	136	34%
2011	53	129	41%
2012	45	136	33%
2013	29	135	21%

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available ten-year period after the implementation of HIV infection reporting in 1999.
Data Source: MDPH HIV/AIDS Surveillance Program, Data as of 1/1/15

Table 12. People diagnosed with HIV infection and AIDS within two months and all people diagnosed with HIV infection by gender, race/ethnicity, and place of birth: Middlesex County, Massachusetts,¹ 2011–2013²

	HIV and AIDS diagnosed within two months	All HIV infection diagnoses	% diagnosed with HIV and AIDS within two months
Gender:	N	N	%
Male	84	280	30%
Female	43	120	36%
Race/Ethnicity:	N	N	%
White (non-Hispanic)	43	161	27%
Black (non-Hispanic)	49	134	37%
Hispanic/Latino	26	76	34%
Asian/Pacific Islander	8	25	32%
Place of Birth:	N	N	%
US	49	194	25%
Puerto Rico/US Dependencies ³	3	10	30%
Non-US	75	196	38%
Total⁴	127	400	32%

¹ Effective January 1, 2011, the Massachusetts Department of Public Health HIV/AIDS fact sheets, epidemiologic reports, and other data presentations have been updated to remove all HIV/AIDS cases that were first diagnosed in another state before being reported in Massachusetts.

² Reflects year of HIV infection diagnosis among all individuals reported with HIV infection, with or without an AIDS diagnosis for the most recently available three-year period after the implementation of HIV infection reporting in 1999.

³ Ninety-nine percent of people diagnosed with HIV infection from 2011–2013 who were born in a US dependency were born in Puerto Rico, <1% were born in the US Virgin Islands.

⁴ Total includes American Indian/Alaska Native, other and unspecified race/ethnicity.

Data Source: MDPH HIV/AIDS Surveillance Program (percentages may not add up to 100% due to rounding), Data as of 1/1/15